Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

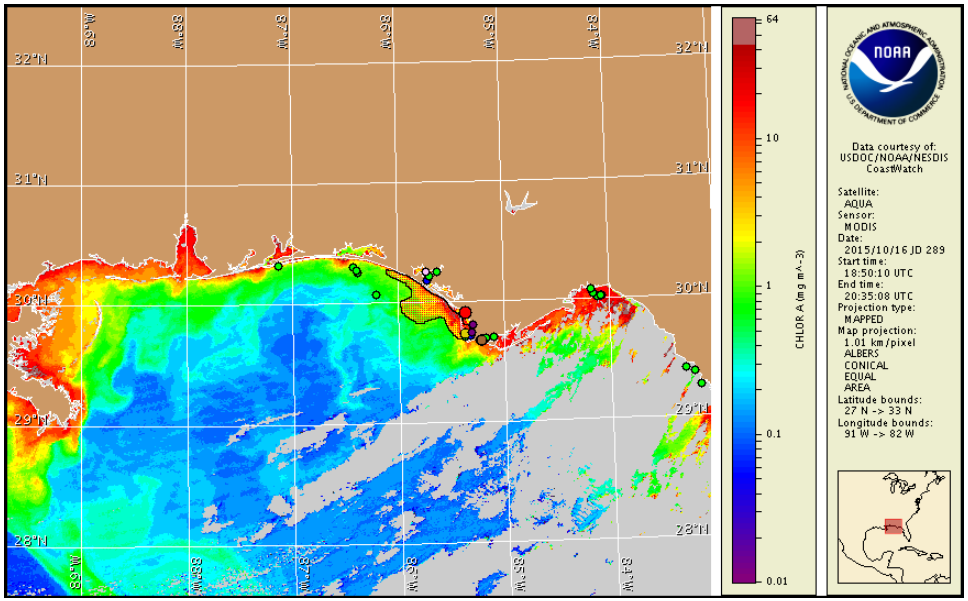
Monday, 19 October 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 15, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 9 to 18: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information for Florida can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of northwest Florida from Escambia to Taylor counties. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for alongshore northwest Florida Monday, October 19 to Thursday, October 22 is listed below:

County Region: Forecast (Duration)
Bay County: Low (M-Th)
Bay County, bay regions: Very Low (Th-M)
Gulf County: Low (M-Th)
Gulf County, west bay regions-St. Joseph Bay area: Moderate (M-Th)
Gulf County, east bay regions-Indian Lagoon area: Low (M-Th)
All Other NWFL County Regions: None expected (M-Th)
SWFL County Regions: Visit http://tidesandcurrents.noaa.gov/hab/#swfl

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Reports of dead fish and respiratory irritation have been received alongshore Gulf and Bay counties.

Analysis

Samples collected over the past week alongshore northwest Florida from Escambia to Taylor counties continue to identify background to 'high' *Karenia brevis* concentrations alongshore Bay to Gulf counties, with the highest concentration identified alongshore Gulf County near Mexico Beach (FWRI; 10/9-10/13). All other samples collected along- and offshore Escambia, Okaloosa, Walton, Franklin, and Wakulla counties indicated that *K. brevis* is not present (FWRI; 10/9-10/13). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus. Fish kills have been reported at Windmark Beach in the Port St. Joe area of Gulf County, and Massalina Bayou in Bay County (FWRI 10/14-16). Respiratory irritation has been reported alongshore Mexico Beach in Bay County (FWRI; 10/14).

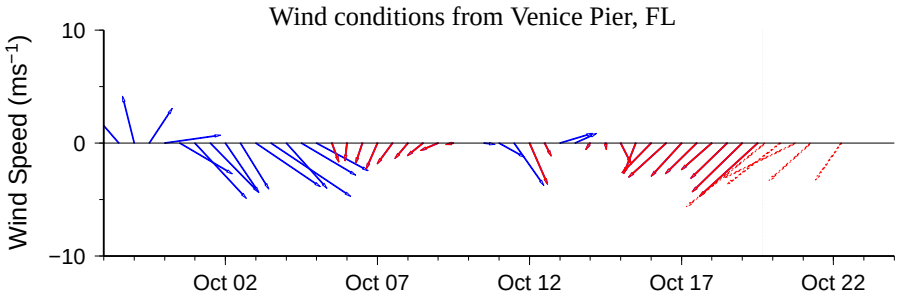
Recent ensemble imagery (MODIS Aqua, 10/16) is partially obscured by clouds, however a feature of elevated to very high chlorophyll (2 to >20 μg/L) with the optical characteristics of *K. brevis* is visible, in patches, alongshore northwest Florida from Okaloosa to Franklin counties, extending up to 20 miles offshore in Bay County.

Winds forecasted alongshore northwest Florida today through Thursday may promote westward transport of *K. brevis* concentrations alongshore northwest Florida. Forecasted winds through Thursday will minimize the potential for intensification of *K. brevis* concentrations at the coast.

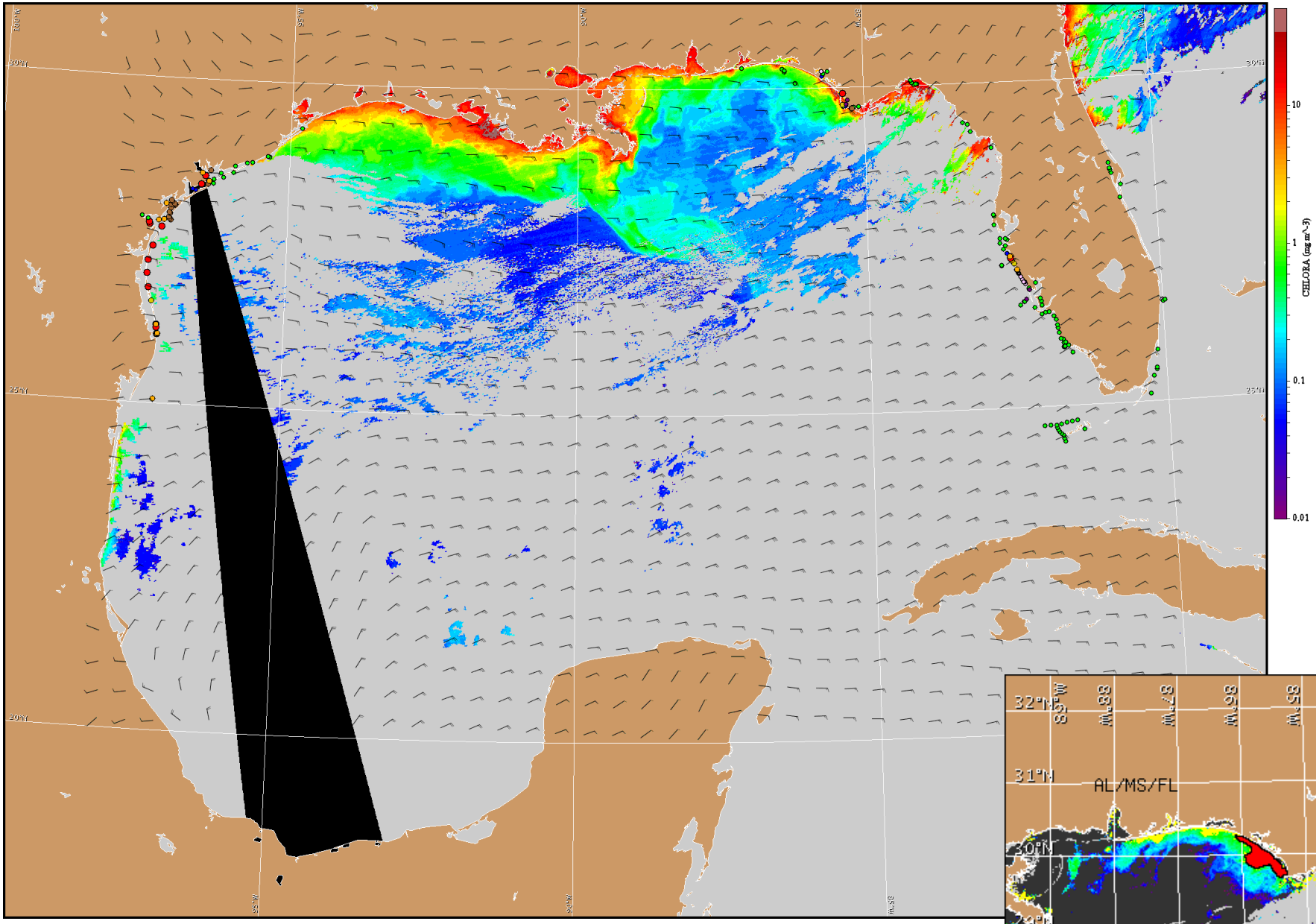
Keeney, Derner

Wind Analysis

Escambia to Taylor counties: East winds (15-20kn, 8-10m/s) today through Thursday.



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Satellite chlorophyll image and forecast winds for October 20, 2015 06Z with points representing cell concentration sampling data from October 9 to 18: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:
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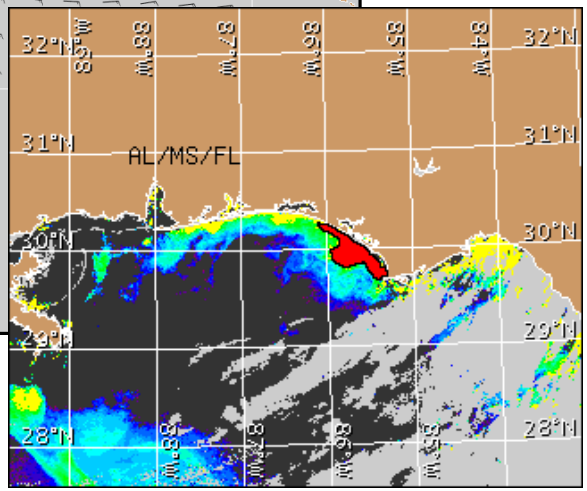

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).